

INQUIRY INTO SKILLS SHORTAGES IN RURAL AND REGIONAL NSW

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Summary



Submission to Inquiry

Skills Shortages in Rural & Regional New South Wales

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Australian Industry Group Submission

Inquiry into skills shortages in rural and regional NSW

The Australian Industry Group has been actively involved, over the past five years, in increasing the awareness of current and looming skill shortages and generating activities and solutions to help address the problems.

In September 2004 Ai group released a report on the nature and depth of skill shortages in manufacturing – *Australia's Skills Gap Costly, Wasteful and Widespread*. The major findings of this report were:

- National skill shortages are estimated to be 21,000 positions (in manufacturing), although a more conservative estimate would put that number closer to 18,000 positions.
- Filling these positions would deliver a five-fold increase in the number of new people employed in manufacturing over the last 12 months
- The largest numbers of skill shortages were in chemical, petroleum and coal products; transport and equipment; and machinery and equipment, each with estimated shortages of at least 3,000 positions.
- Queensland followed by New South Wales has the largest number of skilled positions vacant, followed by Victoria.
- One in two firms surveyed were experiencing difficulties in obtaining skilled labour
- Skilled vacancy rates were inversely related to firm size, with small firms having the highest vacancy rate (83.3 vacancies per 1,000 employees) and large firms the smallest (14.3)

The Australian Industry Group has also been conducting specific activities in both the Hunter and the Illawarra, with the express view of helping alleviate skill shortages in these regions. These Regional Skill Shortages Pilot programs, funded by DEST, have been underway for approximately 10 months. Information contained in this submission is largely drawn from the work undertaken in these two programs.

The Hunter Region

a. The current and future demand for labour

The Australian Industry Group conducted two surveys with industry, which provided specific and additional information regarding the Hunter.

The first survey to industry was conducted in May 2004 by the Australian Industry Group (Ai Group) to provide quantitative information on the nature and extent of the skill shortages facing the manufactures in the Hunter region.

A total of 805 skilled vacancies were identified from the 61 Hunter employers who were respondent to the survey.

This survey clearly identified the extent of the skill shortages at the trade level and beyond.

Survey attached as **Attachment A**

b. The Economic and social impact of the skills shortages

Ai Group research into the extent and nature of skill shortages in the manufacturing, engineering and related service sectors reveals industry in the Hunter is experiencing difficulties in obtaining skilled labour to support business and economic growth in the region.

Positions for electricians, boilermakers, fabricators, labourers, engineers and so on remain unfilled because employers cannot find applicants with the right skills, qualifications and/or experience to meet the needs of industry.

Follow-up work relating to social impact has yet to be undertaken.

c. The strategies and programs of local government to retain and attract skilled workers including opportunities for strategies and programs in conjunction with non government bodies such as regional business organizations and Area Consultative Committees and Regional Development Boards.

The work of the Hunter Skills Development Taskforce has involved 65 stakeholders from various organisations, departments and industry.

Australian Industry Group is aware of partnerships with local government agencies and TAFE to address skill shortage issues in their regions. However, the Hunter Skills Development program is not involved.

e. Coordination between Local, State and Commonwealth Governments, to attract and retain skilled workers.

The Hunter Skills Development Taskforce, funded by the Australian Government through the Department of Education, Science and Training has representations from across Industry, Government, Unions, Registered Training Organisations, Department of Education and Training STS and DETNAC, Department Education and Workplace Relations.

The twelve-month program has brought together the key stakeholders in the region in an attempt to tackle the reasons behind the ongoing issue of local skills shortages and has built upon the many initiatives that were already underway in the Hunter region within the manufacturing, engineering and related service sectors.

The work being undertaken through the program has been delivered through the co-operation of some 65 representatives on four working groups, the Industry – School Links; Apprenticeship and Training Pathway; Job Network; and Vocational Education and Training – Higher Education Interface working groups.

Action Plan attached as **Attachment B**.

As a result of a workshop with Taskforce members addressing issues and concerns that they saw affecting the region, four working groups were established.

The Training Pathways and Apprenticeship Review Working Group is aimed at engaging employers to review training pathways and apprentice training. The outcomes from this review group have been used to negotiate new training arrangements with providers.

The Industry/Schools Working Group is aimed at promoting and developing models to form partnerships between industry and schools. The group has been working towards changing perceptions of careers in trades by parents, teachers, career advisors, students and the community.

The group's first initiative was to organise two Forums in the Lower and Upper Hunter to bring schools and industry together to discuss partnerships. Over 200 people attended these forums.

Adopt the School model were used as an example of partnering.

The Group developed a CD for the Forums, which contained information regarding established industry and schools models currently being used in the community. Contact details and information of the stakeholders present at the forums was included on the CD.

The group will be conducting information evenings with parents to address the existing perception of careers in trades.

A further initiative is being discussed as to the most effective way to obtain information from students in regards to their existing perceptions of trades and knowledge gaps. It is anticipated that these discussion groups or surveys will be held in the near future.

The VET/Higher Interface Working Group is aimed at reviewing the need of industry in regards to higher education training. Discussions are being held with industry, TAFE and Newcastle University to assist in determining the needs of industry in regards to higher education training.

The Job Network Group is aimed at establishing methods to enable Job Network members to work co-operatively together to contribute to the resolutions of the skill shortage issues. The Group is currently identifying job seekers for positions that have been put forward by industry.

The HSD program is negotiating with TAFE to develop a course for Job Network members that will train unemployed people in industry positions as well as offer on the job work experience. Vacancies identified by industry will be used to identify employment or training opportunities for job seekers.

f. The impact of the Commonwealth's regional migration programs including assessing the long-term jobs and investment outcomes and considering possible recommendations to encourage sustainable region

The Hunter Skills Development Program has been working with a number of companies in the Hunter assisting them with information in regards to skilled migration. One of the greatest barriers in this region for industry is having the knowledge to know how and where to access information in regards to employing skilled migrants.

Ai Group has been trying to promote to industry the Regional Certifying Body in the Hunter, which is Hunter Organisation of Regional Councils.

The other barrier for this region is also that major areas in the Hunter with large numbers of industry are unable to access the Regional Sponsored Migration Scheme, due to these areas not being classified as regional for the purposes of the program. Some of the Local government areas in the Hunter does not qualify for the RMMS. See attached copy of Ai Groups 2005-06 Migration Program Consultation. **Attachment C.**

The Hunter Skills Development program is developing flyers for industry detailing how and where to access information along with a flow chart on how to use the Skills Matching Database on the Department of Immigrations website.

Ai Group has been successful in securing two outposted officers from DIMIA to work in the Sydney and Melbourne offices to assist members with migration issues.

Ai Group has been working closely with the Migrant Resource Centre which has officers that are able to assist industry at a fee for service basis at reasonable rate as they are a non profit organisation.

The Hunter Skills Development Program investigated the opportunity to become involved in any of the Department of Immigrations pilot programs addressing skilled migration.

h. The methods used by training organizations including TAFE to assess skills need in rural and regional NSW and their responses to identify needs.

A critical element to the success of the Hunter Skills Development Program has been the strong relationships established with TAFE and the Department of Education.

As a result of the companies requesting information in regards to up skilling their existing workers the following initiatives were achieved through TAFE and State Training Services and other provide providers.

Funding was secured through the State Training Services (STS) in Newcastle to deliver two courses to assist industry,” CNC Machining, Turning and Milling” and “Pressure Welding using Gas Metal”. The training was run through Hunter V-TEC and the Hunter Institute.

The Hunter Institute designed the course to be delivered to meet industries needs in content and delivery times.

Workplace Training Initiative

Through the Apprentices review and Training pathways committee it was identified that local apprentices in the Hunter where travelling to Sydney to carry out apprenticeship training. Through the assistance of TAFE and audit and review has been carried out on the training being developed and it is anticipated that this training can be carried out by TAFE in the Hunter.

Hunter TAFE has recognised the need to assist regions with skills shortages and has subsidised many classes in the Upper Hunter to allow the training to be delivered without the required number of students attending.

New courses have been designed and delivered in the regions to meet industry needs; each faculty in the Hunter is working closely with the local government representatives and the Department of Education.

The Hunter Skills Development Taskforce is currently working with TAFE and the Job Networks to deliver training to long term unemployed people in the areas of the skill shortages.

The Illawarra

a. The current and future demand for labour

Surveys were conducted by AiGroup in the Hunter and Illawarra regions in July 2004. A total of 105 employers were surveyed who employed 12,600 people across the two regions and 30, 200 nationally.

91% of respondents in the Illawarra and 85% of respondents in the Hunter region are experiencing skill shortages.

The demand is far greater than the supply of labour, with a total of 1545 vacancies being identified between July 2004 and December 2004. Existing workforce gaps are 41% (Hunter) and 40% (Illawarra). See **Attachment D**

A summary of further survey results regarding the **Illawarra** region follows :

The **spread of occupations** in skill shortage were as follows:

Degree	76	10% of total
Post Trade	87	12%
Trade	368	50%
Semi-Skilled	209	28%

Key Occupations:

Degree	Financial Services, Logistics, Mechanical & General Engineering, IT & Sales
Post-Trade	Financial Services, Protective Services, Supervisors
Trade	Boilermakers, Fitters, Bricklayers, Machinists, Electricians
Semi-Skilled	Riggers, Scaffolders, Disability Support, General Labour

The Branding Sub-Committee of the AiGroup Illawarra Skills Shortages Pilot Program recently conducted Focus Groups with students at Corrimal High School. Responses indicated:

- 62% of Year 10 students have no understanding of the words "skill shortage"
- 47% of Year 10 students didn't know what types of pay rates trades provided and 28% thought that pay rates for trades qualified people were very low.
- 67% of students believed it was Very Important to research a career. However 91% of Year 10 students and 68% of Year 12 students did not know what employment opportunities were available in the Illawarra area.
- Only 9% of students had approached employers to look for information on career options
- Over 80% of students would go to their parents or School Careers Advisor for advice on career options.

b. The economic and social impact of the skills shortage

“Labour and workplace issues (are) significant for manufacturers, although most concern rests with (non-wage) costs and a shortage of skilled employees. The availability of skilled labour was the second most critical factor affecting operating performance (cited as such by 39.8% of all manufacturers). Shortages were most critical (with over 40% of firms identifying this as an issue) in the paper, printing and publishing; chemicals, petroleum and coals products; basic metal products; transport equipment; and machinery and equipment sectors. Within the transport equipment sector, 56.2% of firms identified this as their number one business issue....

Allied to skill shortages was recognition of the need for greater incentives to support training initiatives. Almost one in every five firms (19.9%) identified support for training as a critical issue. This was particularly so for medium sized firms among which growth appears to be constrained by the limited availability of skilled employees.”

A Survey of Business priorities in the Leadup to the Budget”, AiGroup Submission

“The problem of the aging workforce and its impact on skill shortages is particularly acute for Australia. By 2016, the number of people aged 60-64 is expected to almost double. Australian has one of the lowest workforce participation rates for older people in the developed world, with just 49% of Australians between 55 and 64 years of age working today compared to 59% in the US; 60% in New Zealand and up to 65% in Scandinavia.

Today there are approximately six working individuals in Australia for every person over 65 years. During the next twenty years, it is estimated that ratio will be reduced to 3:1.”

Facing the Challenges of an Aging Workforce, AiGroup Fact Sheet

d. Coordination between Local, State and Commonwealth Governments, to attract and retain skilled workers

The DEST funded Illawarra Skills Shortage Pilot Program co-ordinated by AiGroup has been actively involved in addressing skills shortages in the Illawarra area. A Skills Taskforce consisting of key stakeholders including major industry representation, Job Network, New Apprenticeships Centres, Union Representatives, the Area Consultative Committee, local councils, the NSW Department of Education and Training and the Chamber of Commerce was formed to provide a cohesive, global approach to the problems faced by Illawarra industry and the broader community. Some of the successful initiatives to date are included in **Attachment E**.

Respondents to AiGroup’s Illawarra Skills Shortages Survey identified the top five solutions to the skill shortage issues:

1. Pre-apprenticeship training for apprentices to increase their job readiness
2. Improved financial incentives for employers to take on apprentices
3. Training of current workforce to up-skill to company requirements
4. Targeted recruitment strategies to improve the quality of applicant pool for apprenticeships
5. Workplace training delivery

The State and Federal Government funded Illawarra and Shoalhaven Apprenticeship Pilot Program is an example of demonstrated success in placing school leavers into apprenticeships using pre-vocational training.

The NSW government funding for additional pre-vocational courses in the Illawarra combined with the DEWR funding for a Project Officer, responsible for marketing and placing these students has resulted in the placement of 140 students into apprenticeships in small to medium sized employers.

The biggest benefit to these employers has been the commitment by the apprentice (demonstrated by completing a 6 month course) coupled with the benefits of only two years of TAFE training required to complete their apprenticeship. Employers can also benefit from the full range of New Apprenticeships Incentives.

The DEST funded AiGroup Illawarra Skill Shortages Taskforce also worked with the NSW state government under their Contracted Training Program to run courses identified as being required by industry (Frontline Management and Workplace Training and Assessment.) Both of these courses were filled successfully.

g. The adequacy of current measures used to record and report on the skills shortage

There are currently very few formal measures used to record and report on the skills shortage. Ai Group has conducted its own surveys and is currently in the process of conducting a nationwide survey.

In her document entitled "Options Paper, Data Collection for Development of Strategies to address Regional Skill Shortages", Judith Stubbs BSW *UNSW* PhD *RMIT* prepared a summary of Existing Sources Of Data On Skills Shortage Issues.

Her report states "The IRIS (2004) *Illawarra skills Shortage Study Phase 1* notes that comprehensive labour market information relating to skill shortage issues is currently available on a National and State level. However, regional data on these trends is currently inadequate.

Apart from data collected by IRIS, there is limited ability to access Illawarra-specific data from existing sources, particularly in terms of long-term trends. Most agencies interviewed believed that there would be a benefit to having

this data available, though they differed in what they considered to be the best method of collection and reporting.”



Skill Shortages in the Hunter

A study on the nature and depth of skills shortages within the manufacturing, engineering, and related service industry sectors

Ai Group Economics

September 2004

Skill Shortages in the Hunter

A study on the nature and depth of skills shortages within the manufacturing, engineering, and related service industry sectors

Executive summary

Regional businesses face many challenges and opportunities in the years ahead. The Australian Industry Group's regional reports make it clear that regional firms, whether operating in export markets or not, face increasing pressure from global competition. They, like their metropolitan counterparts, face new pressures from emerging industrial giants, such as China; the rebalancing of our currency; the push towards global outsourcing; and the erosion of Australia's traditional export markets. To be world competitive, amongst other requirements, regional businesses need a highly skilled workforce.

The most often cited advantage of location within the Hunter by the 73 firms involved in the *Ai Group – Commonwealth Bank Industry in the Regions 2001*¹ report was the availability of skilled labour. In the three years that has followed, the emergence of shortages of skilled labour has been identified as a problem for Hunter employers. The anecdotal evidence suggests that industry has not been able to tender for as many contracts as they would have if the appropriate supply of skilled labour were available.

In order to understand the extent and nature of skill shortages within the region, the Australian Industry Group conducted a survey of its members.

A total of 805 skilled vacancies were identified from the 61 Hunter employers, who currently employ 6400 people within the region. This represents a vacancy for every 8 employees in the workforce.

Positions for electricians, boilermakers, fabricators, labourers, engineers and so on remain unfilled because employers cannot find applicants with the right skills, qualifications and/or experience to meet the needs of industry.

¹ Industry in the Regions 2001, Ai Group, 2001.

Skill vacancies are higher for smaller firms (30 or less employees) who register a vacancy for every four members of their workforce. Medium sized enterprises (31 to 100 employees) have a vacancy for every six members of their workforce. This rate increases to a vacancy for every ten employees in larger businesses (more than 100 employees).

Where employers do not receive applications for vacancies, this could be termed a true occupational shortage. Around 29 percent of all firm responses regarding vacancies fell into this category. A lack of qualifications was identified by a relatively small number of firms as the reason for shortage (13% of firm responses). The most reported problems in filling vacancies was a lack of specific skills required by the business in job applicants who possessed the relevant qualification (29% of firm responses) or that if they had the qualifications, skills and experience they lacked the “employability skills” such as teamwork, attitude and alike for the position (30% of firm responses).

Skill gaps within the existing workforce are also a problem for industry in the region. One in four firms identify these gaps in their workforce. Around 41 percent of firms indicate that training providers are able to assist them in filling these gaps. Almost all firms identifying gaps would like to participate in programs that resolve these problems for their existing workforce.

Given the extent of the problem at the trade level, longer-term solutions to skill shortages will involve taking on apprentices. The study reveals some particular challenges to increase the participation level of small firms given that the majority of apprentice training continues to be in medium size and larger firms and that these are also the businesses who have increased their apprentice intake in recent years.

In order to increase smaller firm participation a preference is reported for more pre-apprentice training, increased financial incentives, targeted recruitment strategies, and more workplace training delivery.

Firms report that immediate solutions to skill shortages lies with skilled migration, up-skilling of both the existing workforce and current unemployed people with qualifications and experience in the industry.

In summary, the study has found:

Shortages in skilled labour

- 85% of firms are experiencing skill shortages.
- 70% of vacancies were at the trade level, while 16% of vacancies were at the semi-skilled level, 9% at the post trade level, and 5% at the degree level.
- Large employers held 63% of the skilled vacancies with the remaining vacancies spread amongst the small and medium sized enterprises evenly.
- Across all firms, there was a vacancy for every 8 employees. The vacancy rates were inversely related to firm size, with small firms having the highest vacancy rate (a vacancy for every 4 employees), medium sized firms registered a vacancy for every 6 employees, and large firms registered a vacancy for every 10 employees.
- The greatest areas of occupational shortage identified were for boilermakers, fitters, machinists and electricians.
- The study shows that the difficulties experienced are evenly spread across no applicants (29% of firms), lack of specific skills (29% of firms), and lack of employability skills (30% of firms). Only a relatively small proportion of firms report vacancies are related to applicants not having the required qualification (13% of firms).
- Based on the nature of skill shortages, a true occupational shortage was identified at the post-trade level where more employers identify the difficulty in attracting labour was that there were no applications.
- At the trade and degree levels, more firms identified that the difficulty in attracting skill labour was related to applicants not having the specific skill requirements of the enterprise (34% and 33% of firm responses respectively).
- At the semi-skilled occupational level the greatest problem in attracting labour was related to employability skills (44% of firm responses).
- 41% of firms overall identified skill gaps within their existing workforce but this varied with the size of the firm. Eight in ten large employers identify skill gaps, while 36 percent of small firms and 28 percent of medium size enterprises report skill gaps in their existing workforce.

Action to address shortages

- Overall, there was an apprentice employed for every 19 employees in the workforce. However, based on ratios medium sized businesses employed a greater number of apprentices, employing an apprentice for every 9 employees while small employers employ an apprentice for every 14 employees and large employers employ an apprentice for every 26 workers.
- Small firms (30 or less employees) employ 12% of the total number of apprentices employed by respondents, while medium sized employers (making up 30% of the sample) employ 30% of the apprentices and large employers (16% of firms) employ 57% of the apprentices.
- One third of small employers had increased their apprentice intake in the last three years, while 72% of medium sized firms and 70% of large employers had increased their intake over the same period.
- Large employers employed 60% of the increase in the number of apprentices over the last three years, 26% of the increase were employed by medium sized enterprises and 14% of the increase were employed by small employers.
- While 16% of firms overall identified problems in attracting apprentices, this varied significantly between firms of different size with 70% of the number identifying problems coming from small businesses.
- Almost one in four firms (38%) identify the need to train the existing workforce to meet current skill gap problems and one third identify the need to upskill currently unemployed people.
- One in four (41%) of firms indicate that training providers are able to fill their existing workforce skill gap needs.
- Strong support was given to pre-apprenticeship training (48% of firms), improved financial incentives (48% of firms), targeted recruitment strategies and skilled migration (both identified by 42% of firms) and workplace training delivery (32% of firms).
- More than half of the respondents indicated a willingness to participate in the solutions to the skill shortage problem (34 firms) with medium sized business (two thirds of firms) and large firms (90%) more willing to participate than smaller businesses (39% willing to participate).

Research aims and objectives

The research conducted in May 2004 was designed to examine the extent and nature of skills shortages within the manufacturing, engineering and related service sectors of the Hunter region.

The study sought to obtain information on the occupational vacancies with the region, the number of these vacancies and the reasons for each position remaining unfilled. As well, the study sought to measure industry participation in apprenticeships and existing workforce training. Companies were also asked to identify how skills shortages could be remedied through short, medium and long-term strategies.

The research was conducted through a special survey of 300 firms in the Hunter region. In total, 61 firms responded employing 6400 people in the Hunter. In order to evaluate whether those that did not respond did not have a problem accessing labour, a random sample of employers were followed up. Almost all of these follow up calls found that the lack of response was because the current shortage of labour was forcing owners and managers of smaller businesses to go back into their original areas of training to fill the current gaps and therefore did not have the time to respond to a survey.

However, given that the survey was focused on skill shortages, those responding are more likely to identify skilled vacancies. Work conducted by Ai Group in September 2004 through the *Australian Industry Group – PriceWaterhouseCoopers Survey of Manufacturing* showed that one in two firms were experiencing skill shortages indicating the likely bias of respondents to the Hunter survey where 85 percent of firms identify shortages.

Shortages in skilled labour

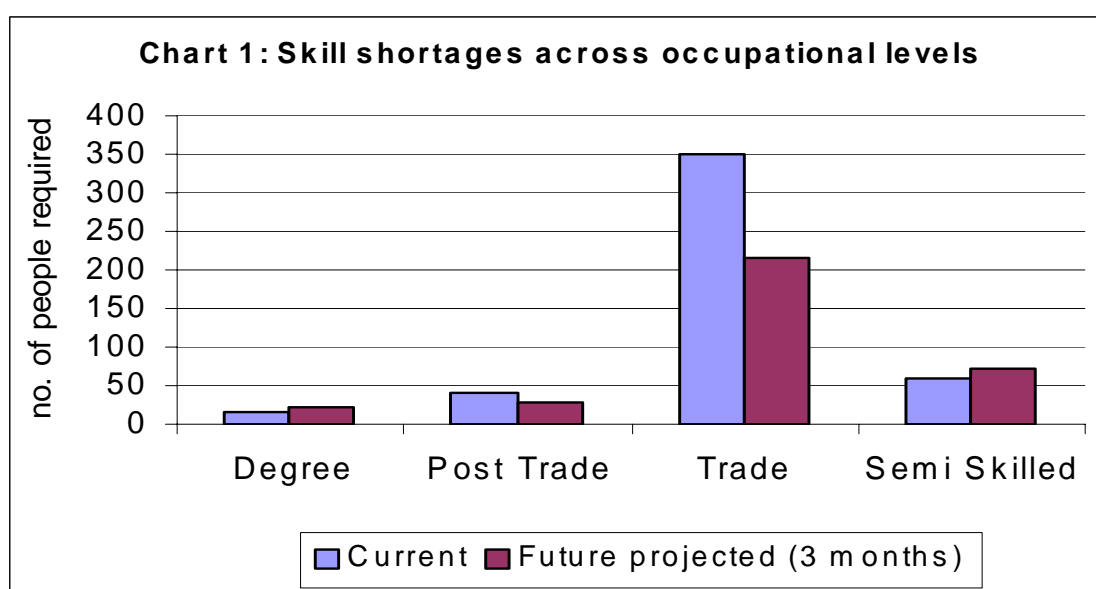
Of the 61 businesses responding to the survey, 85 percent indicated they were experiencing difficulty in obtaining skilled employees. In total, 805 vacancies were reported, 467 immediate vacancies and a further 338 projected requirements over the course of the year.

The most severe shortages were identified at the trade level where 566 (70% of all vacancies) were recorded. (Chart 1: Skill shortages across occupational

levels). Around 16% of vacancies were at the semi-skilled level while 9% and 5% were recorded at the post-trade and degree levels respectively.

Despite the fact that large employers made up only 16 percent of the total survey respondents, they recorded 62 percent of all vacancies. The remaining vacancies were spread evenly amongst the small and medium sized survey respondents.

However, the incidence of skilled vacancies was inversely related to firm size. While there was a skilled vacancy registered for every eight employees overall, a vacancy was registered for every four employees amongst small (less than 30 employees), for every six in medium sized businesses (31-100 employees) and for every 10 workers in large firms (100+ employees).



There was considerable spread of skilled vacancies across identified occupations. (Table 1: Skilled vacancies by occupation). The occupations most identified in shortage were those at the trade level of boilermaker (32% of firms), fitter (22% of firms), machinist (13% of firms) and electricians (12% of firms).

Table 1: Skilled vacancies by occupation

Occupation	% of firms	Occupation	% of firms
Mechanical Engineer	7	Locksmith	2
Electrical Engineer	3	Plant/ Diesel Mechanic	7
Design Engineer	2	Metal Trades -other	2
Structural Engineer	2	Painter	2
Engineer - general	3	Springmaker	2
Finance Manager	2	Shipwright	2
Draughtsperson	7	Rigger	7
Supervisor	7	Engineering Production Worker	2
Estimators	2	Coil Winders	2
Fitters (post trade)	3	Labourer/ general hand	8
Electrician (post trade)	3	Earthmoving operator	2
Boilermaker	32	Storeperson/ packer	3
Fabricator	7	Welder	8
Fitter	22	Licensed installors	2
Electrical	12	Scaffolders	2
Machinist	13	Powder Coating	2

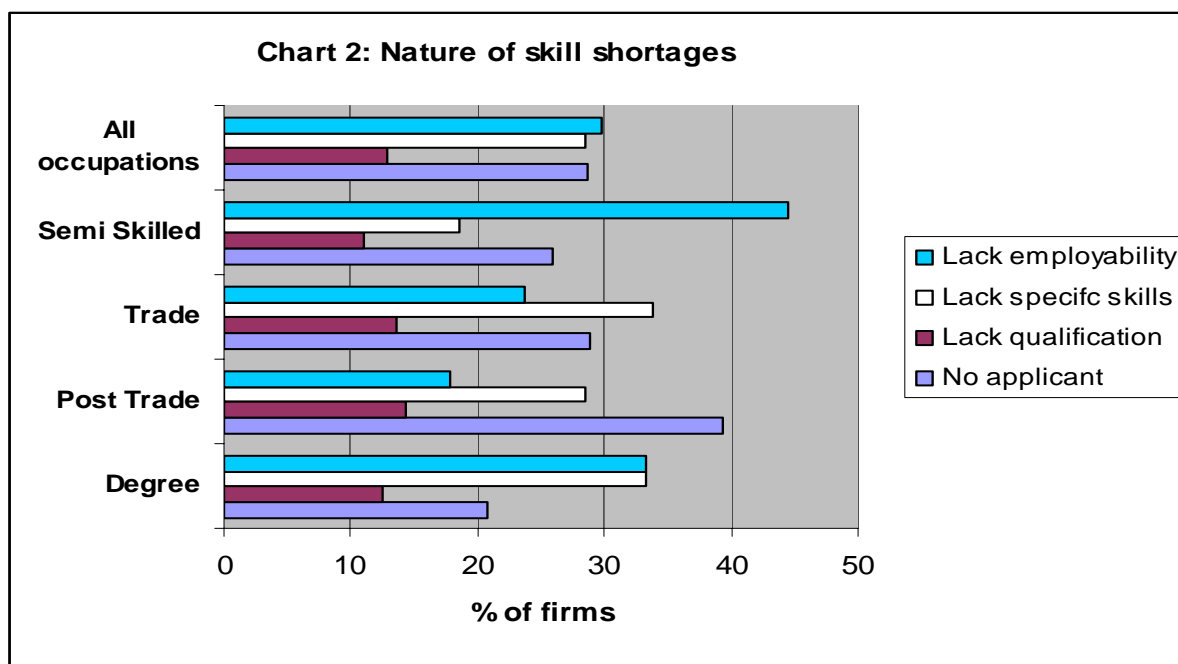
Nature of skilled vacancies

The changes in the manufacturing, engineering and related service sectors over the last decade or more have brought about changes in the requirements for skilled labour. Previous Ai Group commissioned research reported in *Training to Compete*² identified the increased need for skills at all occupational levels to meet both quality and technology requirements in an increasingly competitive international environment.

The research sought to identify whether the difficulties in obtaining skilled employees were as a result of no applicants (true occupational shortage) or other reasons. These included a lack of qualifications in people applying for vacancies, a lack of specific skills required despite having qualifications, or a lack of employability skills such as teamwork, attitude and other factors in those applying for available vacancies that may have qualifications and skills.

The study shows that the difficulties experienced are evenly spread across no applicants (29% of firms), lack of specific skills (29% of firms), and lack of employability skills (30% of firms). Only a relatively small proportion of firms report vacancies are related to applicants not having the required qualification (13% of firms).

² *Training to Compete*, Allen Consulting Group, 1999.



There are also differences across occupational levels with regards to the nature of the difficulties in finding skilled labour. More firms report that there are no applicants for positions at the post trade level (almost one in four firms), while at the trade and degree levels the most likely reason for difficulty in accessing labour is related to applicants not having the specific skill requirements of the business (one third of firms). More firms report that the nature of the difficulty in attracting semi-skilled labour is that applicants lack employability skills (44% of firms).

Existing Workforce Skill Gaps

Given the changing nature of skills required by wealth generation industries, the research also sought to understand the level of skill gaps within the existing workforce. The results show that one in four firms identify skill gaps within their workforce. This is most likely to be identified in large firms where 80 percent indicate they have skill gaps. More than a third (36%) of small firms (30 or less employees) identify existing workforce skill gaps while 28 percent of medium sized firms (31-100 employees) identify gaps.

Almost all firms that identify existing gaps in their workforce want to participate in training programs to resolve these. One in four firms believe training

providers are meeting their needs in this area. This research identifies the opportunities for training providers to assist in meeting current skill gap requirements.

Action taken to address shortages

Survey respondents were asked to suggest how they believe the current skill shortage and gap problems could be addressed, and if they would be willing to participate in the solutions. It also sought to understand current practices with respect to the long term strategy of addressing skill shortages at the trade level by employing apprentices.

Given the extent of the problem at the trade level, a focus on apprentice training will be necessary in achieving long term solutions. In order to understand the solutions, it is first necessary to conduct an analysis of the current practices. In total, the 61 businesses employed 331 apprentices. This represents the employment of one apprentice for every 19 people employed. Medium sized businesses (employing between 31 and 100 employees) employed the greatest number of apprentices on a ratio basis, employing an apprentice for every 9 employees. Small employers employ an apprentice for every 14 members of their workforce and large employers employ an apprentice for every 26 workers.

In absolute terms, small firms (30 or less employees) making up more than half of the respondents employed 12 percent of the total number of apprentices. Medium sized employers (making up 30% of the sample) employ 30 percent of the apprentices and large employers (16% of firms) employ 57 percent of the apprentices.

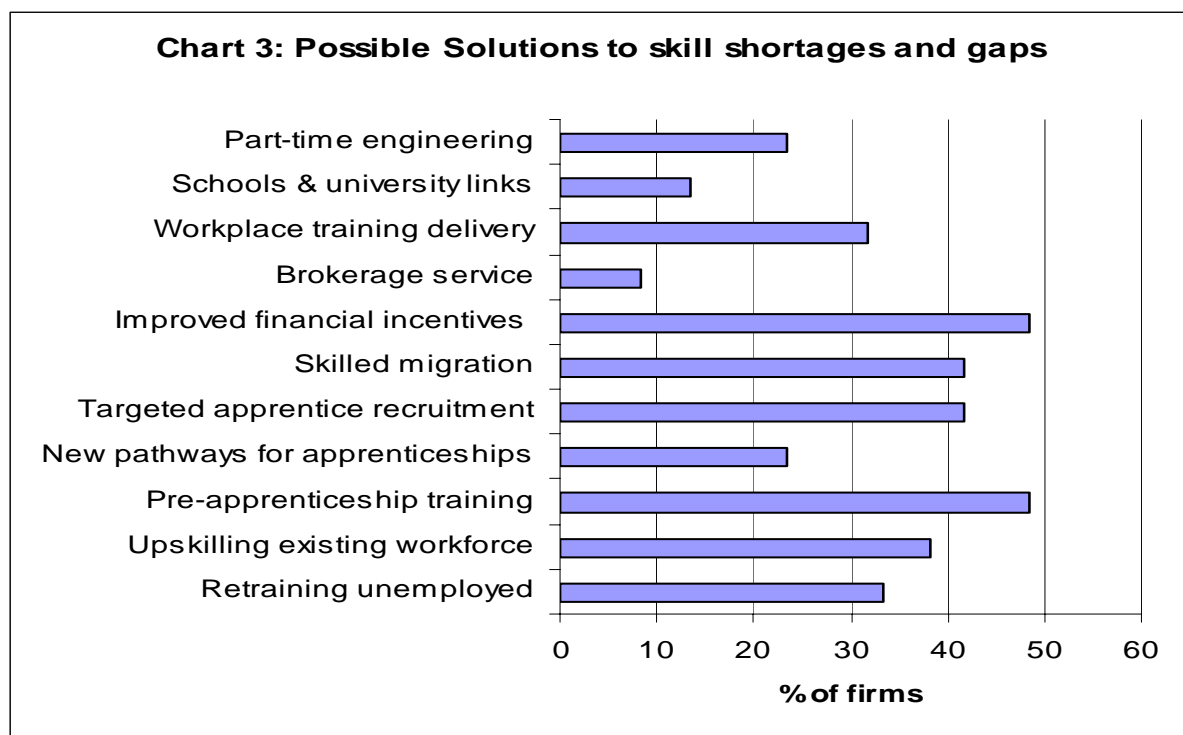
Overall more than half of the respondents had increased their apprentice intake in the last three years. However, there were variations based on firm size. One third of small employers reported that they had increased their apprentice intake in the last three years, compared to 72% of medium sized firms and 70% of large employers. Large employers employed 60% of the increase in the number of apprentices over the last three years, 26% of the increase were employed by medium sized enterprises and 14% of the increase were employed by small employers.

The study also shows that difficulties in attracting apprentices were concentrated amongst small firms. While 16% of firms overall identified problems in attracting apprentices, this varied significantly between firms of different size with 70% of the number identifying problems coming from small businesses. This supports the anecdotal evidence of employers that larger firms have much greater success in attracting apprentices than small firms.

In addressing current skill shortages and gaps, firms were asked to identify the strategies they believe will help to solve the problems. (Chart 3: Possible solutions to skill shortages and gaps).

The need to focus on an upskilling of the existing workforce was identified by almost one in four firms (38%). One third of firms also identified the need to upskill currently unemployed people. As a short-term solution to the severity of the current problems, skilled migration was identified by 42% of firms as a strategy to be used.

As a longer-term strategy to increase industry participation in apprentice training, strong support was given to pre-apprenticeship training (48% of firms), improved financial incentives (48% of firms), targeted recruitment strategies and workplace training delivery (32% of firms).



The survey also sought to test the willingness of industry to be part of the solution to current problems. More than half of the respondents indicated their willingness to be involved (34 firms) with medium sized business (two thirds of firms) and large firms (90%) more willing to participate than smaller firms (39% willing to participate).

Summary

This research into the extent and nature of skill shortages in the manufacturing, engineering and related service sectors reveals industry in the Hunter is experiencing difficulties in obtaining skilled labour to support business and economic growth in the region.

Although the absolute number of vacancies is highest for large employers, skill shortages are more severe for smaller employers who are having difficulty attracting skilled labour to their business. The research also shows that while smaller firms have a higher apprentice ratio per employee than larger firms, they have not increased their apprentice intake in the same proportion as larger firms in recent years. Increasing this will be a challenge for industry in the coming years.

There are both short and long-term solutions that industry has identified and indicated they would be willing to participate in to achieve sustainable outcomes in resolving the current skill shortages and gaps within the Hunter region.

Hunter Skills Development Action Plan: The Way Forward

The *Hunter Skills Development Action Plan* was developed through research with Hunter members of the Australian Industry Group in May 2004, the advice of the Ai Group's policy formation body, the Hunter Manufacturing Council, and the Hunter Skills Development Taskforce.

The Action Plan builds upon the work done by the Australian Industry Group in "*World class skills for world class industries: A Strategy to Build Skills and Capability*".

The *Hunter Skills Development Action Plan* is funded by the Department of Education, Science and Training under the National Skills Shortages Strategy - a partnership between the Australian Government and key industry groups working together to develop solutions to the skills shortages in critical industries throughout Australia, particularly in the traditional trades.

The twelve-month program will bring together the key stakeholders in the region in an attempt to tackle the reasons behind the ongoing issue of local skills shortages and intends to build upon the many initiatives that are already underway in the Hunter region within the manufacturing, engineering and related service sectors.

The project will also make policy recommendations to lift the participation of individuals and industry in the education and training system.

1. Map all stakeholders and identify program and delivery arrangements

Action:

- Provide a map of all stakeholders - registered training organisations (RTOs), funding bodies, group training companies, industry advisory bodies and government agencies.
- Identify all training programs currently being delivered within the region by RTO's including current delivery arrangements.
- Promote the availability of this information to industry and stakeholders.

2. Focus on the existing workforce to retain and further develop workforce skills

Action:

- Promote best practice methods for retaining existing workforce.
- Assist industry in the identification of skill requirements to enhance workforce skills
- Explore available funding options to support upskilling of existing workforce
- Negotiate with RTO's for upskilling of the existing workforce.

3. Review existing Apprenticeship Arrangements

Action:

- Establish an apprenticeship review working group
- Building on current initiatives, work with training providers to pilot new pathways for apprenticeships.
- Work with industry to pilot implementation of accelerated adult apprenticeships in accordance with the Vocational Training Guideline of 03 August 2004.
- Explore with providers recommendations for the NSW government on the funding model for delivery of VET programs, especially traditional apprenticeships with special attention paid to sufficient resourcing of programs in 'skill intensive' industries.

4. Focus on Skill Formation

Action:

- Promote the option of intensive front-end training and induction and provide greater access to Recognition of Prior Learning.
- Provide support to the declaration of new trades and callings, where appropriate, and advocate the provision of state funding, particularly in the upper skill levels of AQF IV-V
- Negotiate with training providers to pilot new training programs in the middle and upper skill areas (AQF IV-V) such as the *Technology Cadetship* and *Competitive Manufacturing Initiative*.
- Negotiate for the delivery of training to upskill members of the existing workforce and unemployed to industry skill requirements.
- Promote the availability of pre-vocational/pre-apprentice programs.
- Pilot approaches that ensure the skills and experience of existing workers are imparted to new entrants.

5. Increase individual and industry participation

Action:

- Hold a forum of young people to explore their ideas, views and perceptions
- Identify ways to promote female participation in engineering occupations
- Promote the use of adult apprenticeships
- Identify the methods to promote job opportunities to new entrants tackling the issue of the negative perception of manufacturing
- Determine whether changes are required to training courses to meet employer requirements to ensure value for businesses and make their commitment more attractive.
- Using available research, recommend and pilot approaches that assist SME's to attract apprentices and pilot recruitment strategies
- Promote the message about the value of skill development.
- Promote Group Training arrangements.
- Explore with employers and individuals incentive arrangements to encourage further uptake of education and training.

6. Labour Market trends and projections to drive VET priorities and funding decisions

Action:

- Develop a labour market forecasting tool to identify existing and projected skill shortages and utilise this information to inform and determine funding for the VET sector.

7. Improved relationships between schools and industry

Action:

- School/industry links strengthened through industry-driven Adopt-A-school programs, or their equivalent.
- Greater engagement with industry and promotion of tools for careers advisers, VET teachers and students.
- Promote the availability of school-based traineeships and apprenticeships

8. Deeper and richer relationship between industry, vocational education and training and higher education sectors

Action:

- Promote best practice examples of collaboration between industry, VET and university sectors.
- Explore additional options for the articulation between VET and higher education programs
- Pilot programs for acceleration into engineering profession through bridging programs.

9. Skilled Migration

Action:

- Provide advice to industry on the availability of skilled migration as a possible short-term solution to current occupational skill shortages.



2005- 06 Migration Program Consultations

Overall Size of the Migration Program

Sustainable rates of net immigration are a central component of Australia's growth path and are an important policy response to shortages of skilled labour in many industries. Because of long-term demographic pressures, chiefly decreasing fertility and an ageing population, a substantial increase in net immigration will be required for the rest of the century in order to maintain both Australia's total population and workforce at a stable level to the year 2100.

The current migration program has a target figure of 120,000 settler arrivals in 2004-05. Net immigration is anticipated to be around half this level. Ai group endorses this steady approach at these levels. From 2005-06 we recommend an increase in settler arrivals towards a minimum target of 150,000.

Increasing settler arrivals to 150,000 annually would, according to median projections, see Australia's population grow to around a stable level of 25 million, which would be maintained until the end of the century. This would also see the projected population aged between 15–64 years grow from around 13 million currently to a stable level of 15 million, which would be maintained until the end of the century.

Impact of Recent Changes on Skilled Migration

Ai Group welcomes the ongoing shift in the emphasis of Australia's immigration program towards attracting those with skills of benefit to the economy (in 03-04 the Skill Stream outcome was 62.3% of the Program, compared with the 95-96 figure of 29.2%).

State-specific and regional migration comprised 18% of the intake in 03-04, indicating that it has been extensively utilised to attempt to address shortages in specific areas. The Regional Sponsored Migration Scheme, which allows regional employers to fill vacancies that they have been unable to do so through the domestic job market, has shown a strong uptake, with visas granted increasing by 24% from the previous year in 2003-04. Ai Group strongly supports the allocation of 5,000 additional places for the Skilled Independent Regional stream in 2004-05.

Suggested Improvements

In recent years the shortage of appropriately skilled labour across Australian industry has emerged as a significant and increasing problem. Labour supply problems are

being experienced in many sectors of the economy, but those that have relied heavily upon the traditional apprenticeship system as the major means of recruiting and skilling new entrants have experienced the greatest shortages. Australian industry is being constrained from achieving its full competitive capabilities and risks losing opportunities to benefit from Australia's robust domestic demand because of these shortages.

Ai Group submits that further increasing the level of skilled migration – both permanent and temporary – would make a substantial contribution to addressing this acute shortage. This increase would need to be closely coordinated with the domestic measures to increase the availability of skilled labour.

Skills Shortages

These skills shortages are not simply a matter of over-stretch in a solidly growing economy. While production conditions remain firm (with the National Account showing annual manufacturing growth around 2%), Ai Group's *Survey of Australian Manufacturing* shows capacity utilisation running at 74.4%, well down on its peak of 78.1% in September 2002.

- National skill shortages in the manufacturing industries are estimated to be 21,000 positions, although a more conservative estimate would put the number closer to 18,000 positions.
- Filling these positions would result in a five-fold increase in the number of new people employed in manufacturing over the last 12 months.
- The largest numbers of skill shortages were in chemicals, petroleum and coal products; transport equipment; and machinery and equipment, each with estimated shortages of at least 3,000 positions.
- The availability of appropriately skilled labour is a concern for defence industries, where the skills gap is some 30% short of defence project requirements.
- Queensland followed by New South Wales has the largest number of skilled positions vacant, followed by Victoria.

Ai Group's survey of 760 manufacturers, published last September, found

- One in two firms surveyed were experiencing difficulties in obtaining skilled labour.
- The greatest difficulties in finding skilled employees were in metal-based sectors, particularly for transport equipment manufacturers.
- High levels of difficulty in finding skilled labour were also evident in the machinery and equipment; fabricated metals; and basic metal manufacturing sectors.
- Across manufacturing overall, there were 21.8 vacancies per 1,000 workers.
- The highest vacancy rates for skilled labour were in the wood, wood products and furniture sector (45.3 vacancies per 1,000 employees) and in the machinery and equipment sector (37.8 vacancies per 1,000 employees). All other metal-based sectors had high vacancy rates.

- All states had significant vacancy rates, with Queensland having the highest rate (45.3 vacancies per 1,000 employees), along with Western Australia (42.3) and Tasmania (30.7).
- Skilled vacancy rates were inversely related to firm size, with small firms having the highest vacancy rate (83.3 vacancies per 1,000 employees) and large firms the smallest (14.3).

It is estimated that 170,000 people will retire from the manufacturing sector in the next five years with as few as 40,000 people being trained to replace them. This is a major shortfall that will impede the capacity of businesses to bid for new work, and to grow and the capacity to complete projects already in the pipeline.

There is a pressing need for action. These examples, whether they are regional or industry sectoral are reflective of the intensity of the problem being experienced broadly across Australian industry, including in the major metropolitan centres.

Regional Areas

Ai Group has also conducted surveys of its members in specific regional locations focused on skills shortages. The findings indicate that serious shortfalls in skills exist in both Hunter and Illawarra regions:

In the Hunter region:

- 61 companies reported a total of 805 vacancies in 2004
- 85% of companies surveyed were experiencing skills shortages
- 633 vacancies recorded were trade level and above

In the Illawarra region:

- 44 companies reported a total of 740 vacancies in 2004
- 91% of companies surveyed were experiencing skill shortages
- 531 vacancies recorded were trade level and above

It is noteworthy that these two regions, together with the gold coast, are the only non-capital city areas to have been excluded from accessing the Regional Sponsored Migration Scheme. While firms in these regions have used the Temporary employer sponsored entry, they still report substantial difficulty in filling vacancies. Ai Group urges a reconsideration of the exclusion of these two areas from the Regional Sponsored Migration Scheme.

Another issue for regional areas is that while targeted immigration programs have contributed substantially to addressing skills shortages on a short-term basis, there is tendency for migrants to relocate to capital cities after the expiry of the mandatory residence restriction. The key reason for this appears to be the lack of community support and networks for workers from a non-English speaking background in many regional areas. This is an area that local and State governments, to various extents, are seeking to address. Ai Group recommends an assessment and stepping up of Federal Government efforts in this area.

Illawarra Skills Survey – July 2004

Key Points

- Survey conducted in July 2004, coinciding with same survey being conducted in the Hunter (provides comparative analysis).
- Responses from **44 employers**, 73% from Manufacturing/Metals sector, and remainder by construction and labour hire industry sectors
- Respondents employ 6,335 people in the Illawarra and nearly 16,000 across Australia
- **91% are experiencing skill shortages**
- **Demand is far greater than supply of labour**, with **740 shortages** identified between July and the end of 2004. Staggering result and one that is shocking to a region that has high levels of unemployment.
- **50:50** split between **current shortages and future projected** this year (363 current, 377 future)
- **Spread of occupations across:**

Degree	76	10% of total
Post-Trade	87	12% “ “
Trade	368	50% “ “
Semi-Skilled	209	28% “ “
- **Key Occupations:**

Degree	Financial Services, Logistics, Mechanical & General Engineering, IT & Sales
Post-Trade	Financial Services, Protective Services, Supervisors
Trade	Boilermakers, Fitters, Bricklayers, Machinists, Electricians
Semi-Skilled	Riggers, Scaffolders, Disability Support, General Labour
- **Nature of issues in obtaining employees for skill shortages:**
 - 1) Applicants with formal qualifications but **NOT the specific skills** required
 - 2) Applicants with quals and technical skills but **NOT the appropriate employability skills** (eg teamwork, attitude)
 - 3) NO applicants
 - 4) Applicants but NOT formal qualifications

1 & 2 above are highest issues in terms of difficulty sourcing employees.

- **Twice as many respondents felt that training did NOT meet their needs** as those that felt that training did meet their needs
- **40% of respondents reported skill gaps within their existing workforce**, with 42% wanting to participate in training programs to resolve existing workforce skill gaps
- Only 14% of respondents have **difficulty attracting apprentices**, and those that do believe the issues are in a lack of commitment and lack of sufficient number of applicants. This could be due to a heavy reliance on Group Training Companies for sourcing of apprentices.
- There has been a **significant increase in the intake of apprentices over the last three years (62% in number)**, with NO reported decreases in apprentice intake from respondents. This demonstrates a **positive commitment to the future, and a significant level of business confidence**.
- Respondents identified the **top five solutions to the skill shortages** as:
 - 1) Pre-apprenticeship training for apprentices to increase their job readiness
 - 2) Improved financial incentives for employers to take on apprentices
 - 3) Training of current workforce to up-skill to company requirements
 - 4) Targeted recruitment strategies to improve the quality of applicant pool for apprenticeships

Workplace training delivery.

Illawarra Skill Shortages Taskforce

Key Outcomes and Achievements

Taskforce Members

- | | |
|--|--|
| • Alminco Pty Ltd | • DMW Group |
| • AMWU | • Edmen Pty Ltd |
| • Australian Industry Group | • Excellence Auto Body Repairs |
| • BlueScope Steel | • Greenacres Workwise |
| • Catholic Education Office | • Illawarra Area Consultative Committee |
| • Choices and Challenges | • Illawarra Area Consultative Committee |
| • D&D Services Australia Pty Ltd | • Illawarra Business Chamber |
| • Dept Of Education & Training | • Illawarra Group Training |
| • Dept. of Education & Training | • Illawarra Regional Development Board |
| • Dept. of Education, Science & Training | • Illawarra Regional Information Service |
| • DETNAC | • Thomas & Coffey |
| • Judith Stubbs & Associates | • Transfield Services |
| • K J Industrial Scaffolding Pty Ltd | • Uniting Aged Care |
| • L & R Ashbolt | • University of Wollongong |
| • Mainteck Services Pty Ltd | • Warrigal Care |
| • Master Builders Association NSW | • Wollongong City Council |
| • Master Builders Association NSW | • Wollongong Training & Employment |
| • NSW Teachers Federation | • South Eastern Sydney and Illawarra Area Health Service |
| • St Vincent de Paul | • Southern Councils Group |
| • TAFE Illawarra Institute | |
| • TAFE Illawarra Institute | |
| • TAFE Illawarra Institute | |
| • Warrigal Care | |

Outcomes

- Establishment of 3 action focused, industry led sub committees
 - Branding
 - Employment
 - Policy
- Identification of long and short term strategies and development of action plan
- Promotion of New General construction traineeships in Scaffolding and Rigging
- Promotion of accelerated apprenticeships in the Engineering trade leading to first two sign ups in Illawarra
- Invitation by DET to fund Skill shortage courses in Train Small Groups and Front Line Management
- Successfully attained IMB funding for Career Surfing Illawarra website (Branding) to promote the benefits of working in the trades to Illawarra youth.
- Extensive media coverage encouraging awareness of skills shortages issue
- Preparation and completion of an Employer Apprenticeship Survey
- Representation on Illawarra Schools Workplace Learning Program Management Committee
- Representation on Illawarra Apprenticeship Pilot Committee (Funded through the DEWR Employment Innovation Fund)
- Guest speakers :
 - Macarthur Apprentice Recruitment Strategy
 - Illawarra Regional Development Board Skills Audit
 - Accelerated Apprenticeships
 - VET in Schools and Bridge to Industry Solar Car project

- Mission Australia
 - Julie Tolley – School Based New Apprenticeships Co-ordinator
 - Phil Rouse – Bluescope Steel – Workforce Planning Tool
 - TAFE – Pre-Vocational Planning
 - Campbell Page NAC – Changes to the Federal Government New Apprenticeships Scheme
- Focus groups with teachers and students held to ascertain awareness of Skills Shortages and career opportunities (Branding)
- Development and promotion of an employer toolkit outlining actions employers can take to address skill shortages (see attached)
- Development of career pathways (Branding/Employment) and Employer Fact sheets (Employment)
- Ai Group lobbying to The Department of Immigration Multicultural and Indigenous Affairs on the regional Sponsored Migration Scheme
- Involvement in the Southern Councils Group meetings to address skills shortages across local government councils
- Meetings and briefings with:
 - The Hon. David Campbell MP, Minister for Regional Development, Minister for the Illawarra, and Minister for Small Business
 - Sharon Bird, Federal Member for Cunningham
 - Jennie George, Federal member for Throsby
 - Connie Fierravanti-Wells, Senator Elect
- Letter to Southern Councils group requesting information on their response to skill shortage issues
- Promotion of Pre Vocational courses
- Discussion paper by Mick Power on apprenticeship indentures (Policy)
- Promotion of Ai Group Adopt a School strategy
- Engagement and Liaison with Group Training Organisations
- RTO visits and engagement
- Job Network discussion commenced
- Research on, and involvement in meetings relating to Australian Technical Colleges
- Liaison with Manufacturing Learning Australia related to the Make it! Campaign
- Hosted visit from Murray Youth training and Employment
- Meeting and engagement with VET School Based New Apprenticeship Office Julie Tolley to assist in promotion of School Based New Apprenticeships
- Individual Advice to employers
- Industry visits
- Extensive research on skills related topics including historical data on NA incentives and School Based New Apprenticeships
- Media Plan in conjunction with the Illawarra Mercury

Future

- Ongoing Job Network engagement/partnership with potential for focused recruitment strategy development (Employment)
- Information/education sessions (Employment)
- Distribution of fact sheets and case studies (Employment)
- Focus groups (Branding)
- Website for young people (Branding)
- Enterprise Skills for the 21st Century (DEST) funding submission for a solar car project or similar (Branding)
- Meeting with Department of Immigration Multicultural and Indigenous Affairs, Regional Migration Unit Manager